

REMARKS

Amendments to the Claims

Many of the independent claims have been amended to recite an elastomer comprising 70 mol% of isobutylene. Support for such an amendment is found in the specification at paragraph 0019. The claims have also been amended to recite that the carbon black of interest has a DBP of less than 70 cm³/100 gm. Support for this amendment is found in the specification at paragraph 00014, as well as the combination of paragraph 0067 and Table 2 wherein paragraph 0067 sets forth a subset of preferred carbon blacks and the highest DBP value for that subset, as shown in Table 2, is 70. New claim 88 is support by original paragraph 0067.

Rejection under 35 U.S.C. § 103

All pending claims stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dias et al. (WO/ 02/48257 A2) (hereinafter Dias").

In the most recent Office Action, for the following reasons, the provided evidence (presumably both that provided in the original specification and the Waddell Declaration) is determined insufficient and the claims are held to be too broad: a) the exemplified carbon blacks fails to establish a criticality for the recited DBP range; b) the exemplified carbon blacks having the recited properties are present in amounts only as high as 120 phr; and c) the examples are only directed to bromobutyl elastomers and fail to establish criticality for the broad generic claim of "at least 30 mol% of isobutylene" as recited in claim 1 and other independent claims.

Regarding point a) above: what seems to be missing from the discussion regarding the physical properties of Applicants recited carbon black is the additional claim limitation of the surface area of the carbon black. Applicants are not solely concerned about the DBP value of the carbon black; it is the combination of the DBP and the surface area. By reciting the combination of these two physical properties, Applicants are narrowing the group of applicable carbon blacks. Dias fails to teach or direct those skilled in the art to select physical properties within the recited ranges. Nor would such a selection have been obvious to those skilled in the art reviewing the disclosed examples of the Dias. Additionally, the claims have been amended

to recite that the DBP range is not more than 70. This range is 20 less than that of the N660 exemplified by Dias.

Regarding point b) above, as Dias only discloses carbon black content of not more than 120 phr, establishing criticality for ranges over 120 phr by Applicants is not required. Dias fails to teach or direct those skilled in the art to have any carbon black greater than 120 phr.

Regarding point c) above, as already noted, the independent claims have been amended to recite the elastomer comprises at least 70% isobutylene. This is a conventional lower limit of isobutylene content for butyl rubbers, as disclosed in the specification. Thus, the claims no longer reach unreasonably beyond the scope of the examples provided.

It is respectfully requested that this rejection be reconsidered in light of the above comments, the Waddell declaration and the amendments to the claims.

With respect to claims 84-87, these claims recite a combination of two different carbon blacks, one carbon black having a DPB less than 80 and one carbon black having a DPB of greater than 80. The sole teachings of Dias with regard to carbon black are limited to the use of a single N660 carbon black in all examples and the following text (pg 21, lines 8-21):

The elastomeric composition may have one or more filler components such as calcium carbonate, clay, mica, silica and silicates, talc, titanium dioxide, starch and other organic fillers such as wood flour, and carbon black. In one embodiment, the filler is carbon black or modified carbon black. The preferred filler is semi-reinforcing grade carbon black present at a level of from 10 to 150 phr of the composition, more preferably from 30 to 120 phr. Useful grades of carbon black as described in RUBBER TECHNOLOGY 59-85 (1995) range from N110 to N990. More desirably, embodiments of the carbon black useful in, for example, tire treads are N229, N351, N339, N220, N234 and N110 provided in ASTM (D3037, D1510, and D3765). Embodiments of the carbon black useful in, for example, sidewalls in tires, are N330, N351, N550, N650, N660, and N762. Embodiments of the carbon black useful in, for example, innerliners or innerliners are N550, N650, N660, N762, N990, and Regal 85 (Cabot Corporation Alpharita, GA) and the like.

Absolutely nowhere in Dias is any suggestion made of a combination of different carbon blacks. Nor is any additional prior art cited in combination with Dias that would suggest the use of two different carbon blacks.

To assert that the subject matter of these claims is covered by the 103 rejection based on Dias is purely arbitrary and dismissive of Applicants claims for an invention. Per the courts:

rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be *some* articulated reasoning with *some* rational underpinning to support the legal conclusion of obviousness. This requirement is as much rooted in the Administrative Procedure Act which ensures due process and non-arbitrary decisionmaking, as it is in § 103. *In re Kahn*, 441 F.3d 977, 987-88 (quoting *In re Kotzab*, 217 F.3s 1365,1370 (Fed. Cir. 2000)(emphasis added)).

If the rejection of claims 84-87 is maintained, it is requested (and appears to be mandatory per the courts) that a more detailed explanation of how the recited composition with two different carbon blacks would have been obvious to one of ordinary skill in the art in light of the teachings of Dias.

The *in re Greenfield* court later held in *in re Kollman*, 595 F2 48, 56 (CCPA 1979) that “unobviousness of a broader claimed range can, in certain instance, be proven by a narrower range of data. Often, one having ordinary skill in the art may be able to ascertain a trend in the exemplified data which would allow him to reasonable extend the probative value thereof. The proof, thus considered, might then be sufficient to rebut a PTO holding of *prima facie* obviousness.” As evidenced by the Waddell Declaration, there is a trend in the exemplified data that would permit one in the art to ascertain a trend that supports the unobviousness of the recited invention.

Having addressed all issues set out in the office action, Applicant respectfully submits that the pending claims are now in condition for allowance. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been addressed to the Examiner's satisfaction. The Commissioner is hereby authorized to charge counsel's Deposit Account No. 05-1712, for any fees, including extension of time fees or excess claim fees, required to make this response timely and acceptable to the Office.

Respectfully submitted,

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Date

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